CURRENT METHODS OF TEACHING HANDWRITING

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This article continues the analysis of the chief methods of teaching writing in use in the United States, which was begun in the May number of this Journal.

Slant.—The slant of writing, as indicated in the previous paragraph, is closely related to the position of the paper upon the desk. The down strokes of writing tend to take a direction perpendicular to the edge of the desk, and, therefore, deviate from the vertical by the same amount that the bottom of the paper deviates from

1. *Japans sovereign*

VII—7   2. *Writing maketh*

3. *Kentucky was*
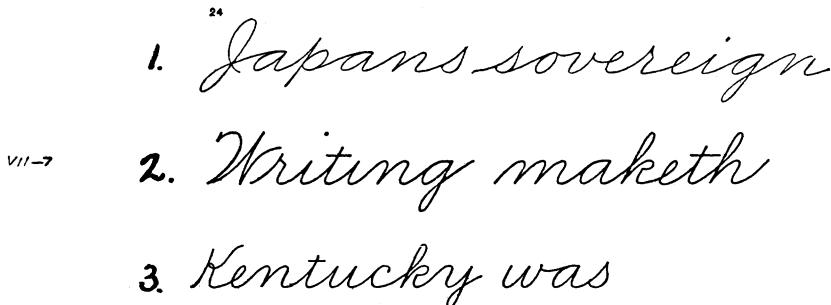
FIG. 1.—Illustrations of three different slants: 1. Standard Free Hand. 2. Economy System. 3. Medial Writing. (Reproduced with the permission of the publishers.)

the horizontal. We may divide the slants which are commonly employed into several classes. In the first class belong the old Spencerian writing and, among the systems which are in present use, the Standard Freehand writing and the Palmer method (see Fig. 1). These have a slant of 52 and 55 degrees respectively. In the next group belong most of the methods which emphasize rapid and free writing. The writing has a slant of about 60 degrees. This type of writing is represented by the California series, the Economy system, the Gilman method, the Houston copy-slips, and Spencer's Practical writing. In the next group belong the

so-called Medial and Semi-slant styles of writing, in which is included the Whitehouse method, which have a slant of 65 degrees or more. Finally there is the Inter-medial system in which a slant of 75 degrees is used. The time is past when there is much splitting of hairs in regard to fine differences of slant, and very few systems lay stress upon this point. It is to be noted, however, that the systems in general which lay stress upon freedom and rapidity of movement naturally fall into a slant of about 60 degrees. It would seem to be reasonable, therefore, to expect a difference in slant in the different school grades, provided a difference in method is used. That is, if in the lower grades a slower movement and one which involves more finger movement is allowed, the paper may very well be placed more nearly in a vertical position and the writing be more nearly vertical than when the arm movement with rest is required. In general, however, the slant is not a matter of primary importance, but is dependent upon the other conditions of the writing and will settle itself naturally in accordance with the way in which these other conditions are determined.

Analytic v. *synthetic method.*—We turn now to a more detailed study of the methods by which the writing habit is developed. A contrast which immediately strikes our attention has been described in a previous article above referred to as a distinction between the analytic and synthetic method. In the analytic method the pupil begins from the start to write whole words or sentences, whereas in the synthetic method he begins with separate letters or the constituent strokes of which the letters are composed. Both of these extremes are represented in the systems which are under discussion. In the Barnes, Berry, California, Medial, New Era, Spencer's Practical, Standard Freehand, and the Writing Hour systems the analytic method in general is followed, whereas in the Bennett, Economy, Gilman, Houston, Palmer, and Steadman systems the synthetic method is followed. If we characterize these two groups of systems in a general way we should say that the first group, which begins with words or sentences, lays relatively more stress upon the acquisition of form, whereas the second group lays relatively more stress upon the development of correct writing movement. This, of course, is only a rough characterization, but, in general, it brings out a distinction which is valid. The only

qualification which needs to be made is that some of the systems represent an intermediate position, in that they begin with the use of whole words or sentences, but build up the writing forms synthetically in a later grade, or in a separate form of drill in the earlier grades. The first of these exceptions is represented by the Berry method which begins the synthetic development of the letters in the fifth grade. The method of separating the writing of words from a drill upon the letters while carrying them along in parallel lines is represented by the Whitehouse system. In this system each copy-book is furnished with the ordinary list of words and sentences as copies, and in addition with a number of detachable slips which contain letters and drill forms.

We may conclude from this survey that the motive for the synthetic development of the letters is largely based upon the demands of movement control rather than upon the demands of form perception. The latter may be sufficiently developed by the use of complete words, but the former demands a more systematic and progressive drill upon the separate letters. If we regard the purpose of the teaching of writing in the primary grades to be mainly development of the perception of the forms of the letters and of the ability to produce them with a limited degree of freedom and accuracy, the analytic method is the one which is suitable for this period of the child's development. If, then, we aim in the intermediate grades to develop greater skill in writing, the drill upon the individual letter forms should be introduced. This procedure seems to the writer to be one which will produce the best development with the least unnecessary waste of time and energy.

Order of development of letters.—In the development of the letters synthetically it immediately becomes evident that there is opportunity to classify them and to develop them systematically. The order of development of the letters, then, becomes important. The degree to which this problem of arrangement has been worked out varies in the different systems. In some cases very little systematic arrangement is apparent, whereas in others the order has been worked out with care.

The basis of classification, when such classification is made, is the type of movement in general which is utilized in the formation of the various letters. Among the systems which have paid

most attention to this matter may be mentioned the Bennett, the Berry, the Economy, the New Era, and the Steadman systems. The classification used in the Economy system may be taken as typical, as it is apparently most consciously worked out. In this system the small letters are divided into six groups, as follows (see Fig. 2): first, *i*, *u*, and *w*, which are based upon the direct oval; second, *n*, *m*, *v*, and *x*, which are based upon the reverse oval;
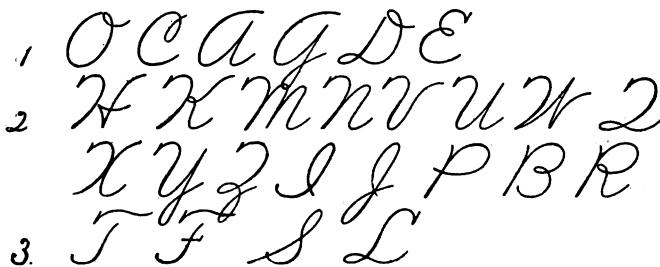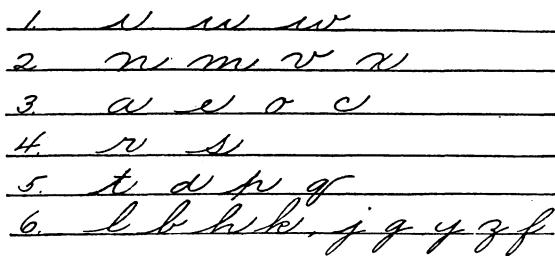

FIG. 2.—Classification and order of development of letters in the Economy system. (*Teacher's Manual*, p. 18. Reproduced with the permission of the publishers, The Laurel Book Co., Chicago.)

third, *a*, *e*, *o*, and *c*, which are also based upon the direct oval but are regarded as more complex than the first group; fourth, *r*, and *s*, which are miscellaneous letters; fifth, *t*, *d*, *p*, and *q*, which have in common the straight up-and-down line; and sixth, *l*, *b*, *h*, *k*, *j*, *g*, *y*, *z*, and *f*, which have the upper or the lower loop in common. The first and third groups might very well be placed together since they are based upon the same type of movement. This, of course, is not the only possible classification. For example, *a*, *d*, *q*, and *g* might be classed together on the basis of the similar movement

which is used in making the parts which are common between these letters. Similarly *n*, *m*, *p*, and *h*, might be grouped together. The purpose of any such classification is not to make the grouping rigid but to classify the letters for a particular purpose, that is, to secure systematic and consecutive practice. In the course of the development similarities which are not represented in the main classification may very well be brought out and made the subject of drill. Some such classification as is here suggested is to be highly recommended for the purpose of introducing system and consecutiveness to the drill.

The capital letters may also be grouped according to the similarity of the movement by which they are written. The classification will depend to some extent upon the type of letters which are chosen, but the broad lines of grouping may be illustrated again from the Economy system. The first group, which is based upon the direct oval, is composed of *O*, *C*, *A*, *G*, *D*, and *E*. The second group, which is related to the reverse oval is composed of *H*, *K*, *N*, *M*, *V*, *U*, *W*, *Q*, *X*, *Y*, *Z*, *I*, *J*, *P*, *B*, and *R*. The third group is composed of the complex letters *T*, *F*, *S*, and *L*.

With this system of development of the letters the order of development in the Bennett method and the Steadman system may be compared. In the Bennett method the letters are divided into three general groups and the treatment of each group forms one part in the system. Thus the first part includes the letters which are based upon the "*i*" as the basic form (see Fig. 3). In this group are included the *i*, *u*, *w*, *e*, *l*, *b*, and *t*. The second group is based upon the "*n*," and includes all of the small letters which are not included in the first group, and the capital letters *P*, *B*, *H*, *K*, *E*, *O*, *C*, *D*, *A*, *W*, *X*, *Q*, *I*, and *J*. The third part includes the connections between letters which involve a complex curve, that is, a curve which includes the curve at the bottom of the "*i*" at the beginning, and the top of the "*n*" at the end. Such a connection is found in the connection between the "*i*" and "*n*," the "*i*" and "*a*," etc. In this part the capital letters *N*, *M*, *V*, *U*, *Y*, *T*, *S*, *L*, *G*, and *R* are included. It will be seen that this grouping is not altogether consistent. That is, certain letters are included in the second group which are not at all obviously related to the "*n*"

form. The difficulty here appears to arise from the fact that too few type forms are chosen as the basis for the letters.

The Steadman system begins with somewhat the same type form but adds others to them. The small letters are taken first. The first group is based upon the "i" form and includes i, n, and u. The second group is based upon the "n" form and includes the other one-space letters. The third group is based upon the "t" and includes the letters which have a straight stem, the t, d, p, and q. Next come the upper loops, then the lower loops, and finally the
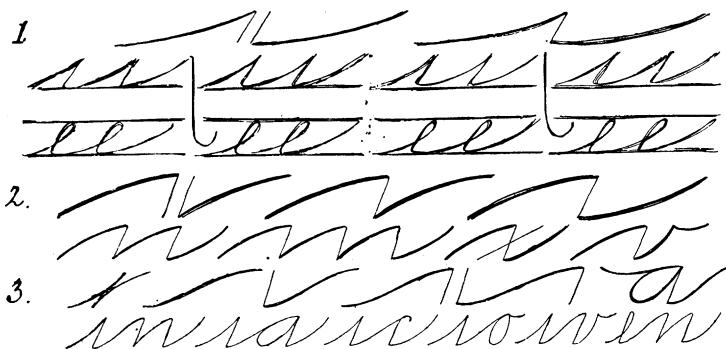

FIG. 3.—Illustration of the three stages of development of letters as given in the Bennett system. Reduced to one-half original size. (Reproduced with the permission of the publisher from M. E. Bennett, *Method in Teaching Writing*.)

"f." The capital letters are grouped in very much the same way as in the Economy system. These examples will be sufficient to illustrate the possible methods of grouping letters according to the similarity of type forms, or more fundamentally according to the type of movement which is chiefly involved in forming them.

Form and movement.—We have already touched upon the relation between the development of form perception and the development of the writing movement. The various systems fall into groups according as they treat of the relation between these two aims of the teaching of writing. In some methods the development of the correct recognition of form is tacitly or explicitly regarded as the primary purpose, and the development of freedom of movement is regarded as secondary to this. The extreme of this

position is, however, on the decline, if we may judge from the rela-
tive frequency with which it is expressed. It is rarely stated openly
but is usually implied merely in the mode of procedure. The copy-
book method of teaching in general has laid stress upon this feature
of teaching. The representatives of this method, however, usually
modify their methods, at least to the extent of furnishing movement
exercises upon the back page of the copy-book. This attitude may
be illustrated by a quotation from the teachers' manual for the New
Era system:

> The New Era copy-books provide a complete course in writing, but in
> deference to the wishes of a few teachers who think pupils in the upper grades
> should be drilled on movement exercises in addition to copy-book work we pre-
> sent herewith several movement drills properly graded for such supplementary
> practice. This, however, is an optional matter and is not necessarily an
> integral part of the New Era System (p. 13).

This illustrates the attitude of the representatives of the copy-
book method who have recognized and yielded to a certain extent
to the demand for formal drill in the writing movement.

The contrasted point of view is much more explicitly and
emphatically stated in the Bennett method as may be seen from the
following quotation:

> . . . . Teaching form before movement is uneducational—there is no
> go-ahead in it. Form should grow out of movement—be a picture of move-
> ment. . . . . In the true teaching of writing forms impress themselves
> upon the minds of children without special effort on the part of the teacher
> (Bennett, p. 6).

This position is, in general, held by A. N. Palmer and A. H.
Steadman, and in general by those who emphasize arm movement.
An intermediate position which is represented in the Economy
system is that both form and movement should be acquired
simultaneously. According to the directions of this method part
of the time of each period from the beginning of instruction in
writing should be spent upon movement drills and part of the time
in the development of correct form.

Here again an intermediate position consists in adopting a
different aim in the primary and intermediate grades. In the
primary grades the chief aim may be to develop correct recognition

of form, and in the intermediate grades to introduce the develop-
ment of rapidity and ease of movement while at the same time con-
tinuing the development of form.   This method of procedure is
adopted for instance in the Berry system.   In this system great
stress is laid in the primary grades upon visualization and writing
from memory, in order to fix the form of the writing in the child's
mind.   In the fifth grade the customary movement exercises are
introduced for the first time.

   Direction of attention in learning.—This issue raises a psycho-
logical question which has been touched upon frequently in experi-
ments upon the learning process.   The question which is there
considered is: Where is the attention directed in learning, toward
the process of manipulation, or toward the result which is to be
attained?   So far as experiments have shown it appears that the
attention is toward the objective result to be attained rather than
toward the movement which produces it.   At any rate this is the
condition which is attained when skill has been acquired.   It may
be necessary temporarily to direct the attention toward the move-
ment, especially when this consists in an adjustment which can
easily be produced voluntarily.   But where the adjustment is one
which must be acquired by a considerable period of practice in
which success is attained by trial and error, the uniform conclusion
is that the result is reached most efficiently by directing the atten-
tion upon the end to be attained.   Applied to handwriting this
principle would lead to the conclusion that the better type of pro-
cedure is to direct attention chiefly to the form of the writing.
This, of course, refers to the attention of the pupil and not to that
of the teacher.   The teacher may introduce exercises which will
require the pupil to use the desired movements.   But the position
that the best procedure is to make the movement prominent in the
consciousness of the learner is clearly out of harmony with the
results of investigations of learning.   The method of improvement
consists in a general adjustment of the hand in a way which experi-
ence has shown to be the most profitable, and then the gradual
development of the co-ordination through repeated trial with the
attention directed upon the result of the trials.   If the movement
is uppermost in the attention the form is in great danger of being

neglected. Certain characteristics of form it is true will tend to take care of themselves if the correct movement is used. Such characteristics are slant and general uniformity of alignment, etc. But it is absurd to conclude that the details of the letters will be produced automatically without attention to them.

Accuracy v. *speed.*—An issue which is connected with the relation between form and movement concerns the question whether the aim should be to develop accuracy first or speed first. That is, should the pupil be urged to form the letters correctly at the beginning and then gradually write them more rapidly, or should he be required to maintain a fairly rapid speed from the beginning and gradually develop accuracy? Some systems hold to the former alternative to the extent of requiring the same speed of writing in all of the different grades. A standard speed is chosen which is taken to represent the natural rate of writing, and this is introduced from the start. A speed of 200 simple strokes a minute is the one ordinarily chosen. This seems to the writer to be clearly an artificial form of procedure which should be modified in adapting writing method to the stage of development of the child. The general question, however, remains. In order to throw light upon this question the general analogy of other forms of development of skill may be drawn. In similar cases a speed of movement is usually chosen which is sufficient to insure that the various elements of the movement shall be united into a single co-ordination, instead of taking place one after the other. The movement, however, is not made so rapid that the learner will not be able to organize it and direct it toward the purpose desired. The beginner is not expected to make a movement which is either so rapid or so accurate as the movement of the expert. And there seems no reason why the same principle should not be applied to the development of the writing movement. We should, then, not expect great rapidity or extreme accuracy at the beginning, but a gradual development in both these characteristics.

Development of form.—One extreme type of attitude toward the development of form has been referred to in the discussion of the relation of form and movement. In this view little attention needs to be paid to the form directly, but the assumption is that correct

form will be produced as a consequence of the correct movement. In general, however, it is believed that in order to develop form advantageously more explicit attention must be paid to it. This problem has been given special attention in several of the systems which are under consideration. In these special methods two types of treatment may be distinguished. In the first type the effort is made to develop correct ideas of form by calling the child's attention more closely to the copy. The assumption underlying this procedure is that the child will naturally imitate those forms which are directly before his eyes. In order to keep the copy before the child the Economy system and the Gilman system have special devices. In the former system the copies are printed upon separate slips which are so attached to the top of a card that they may be turned over and successively brought to view. The practice paper is placed under these slips and may be shifted up as each line is written in order to bring the succeeding line directly under the copy. The purpose of this device is to prevent the child from copying his own writing rather than the copy which is set before him. A somewhat similar method is used in the Gilman "Optically Adjustable Copy." This device consists in slips which are inserted in the book between the copy sheets, so that instead of lying flat upon the desk they may be held at such an angle that they are easily seen.

The opposing method is brought out most clearly in the Berry system, not so much in any particular device as in the recommendation which is given for the manner of using the copy. Emphasis is here laid not upon following the copy, but upon fixing the form in mind in such a way that it may be reproduced from memory. The purpose of this method is to lead to the visualization of the word or sentence as a whole rather than to the following of the letters part by part.

This raises the whole question of the place and function of the copy. If the letter or word is to be written as a whole instead of as a collection of isolated parts the second method above referred to is the one which is justified upon psychological principles. The copy in this view is to be used not as a guide during the process of writing but rather as a model to be referred to in analyzing and criticizing

one's own production.   The pupil is more apt to repeat his errors
if his attention is not called to errors in his own writing than if
his writing is withdrawn from view and his attention is again
turned to the copy.   Psychological experiments have suggested
that errors in reproduction of form are better corrected by an
analysis of the form which has been drawn with the standard
in mind than by merely referring again to the standard with-
out comparing with one's own drawing.   The attempt to empha-
size the copy in the mind of the child fails then in two respects:
first, in the unification of the writing process; and second, in the
direction of the attention toward an analysis of the pupil's own
production.

Content of the copies.—In respect to the content of the copies
which are set before the child there have been some attempts toward
improvement.   We may here compare the method of teaching
writing with the teaching of reading.   Reading-books have justly
been criticized because of the disconnectedness and lack of interest
of the subject-matter, and the same criticism may be directed toward
the majority of copy-books.   They ordinarily begin with isolated
words, then toward the end of the first book, or in the second
book, they introduce short phrases and disconnected sentences.
In succeeding books, proverbs or disconnected statements of fact
are commonly used, and finally in the last two books, business forms
and social forms are introduced.   Several of the systems of teach-
ing have attempted to improve upon this uninteresting type of
subject-matter by making it somewhat more connected and syste-
matic and by using interesting illustrations.   This is worked out
with some completeness in the California series and the White-
house method, but the most elaborate and successful attempt in
this direction has been made in the Berry system (see Fig. 4).
Great care has been taken in these books to secure subject-matter
which is interesting to the child at the various stages of his develop-
ment and at the same time possess literary excellence.   The subject-
matter is largely chosen from jingles, nursery rhymes, proverbs,
quotations, etc., which have become standard as literature for
children.   The illustrations have been drawn by some of the best
children's artists and are very attractive.   If one is to use copy-
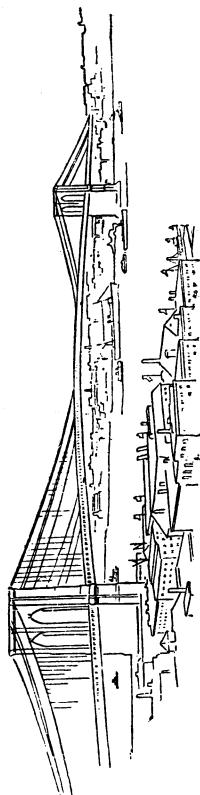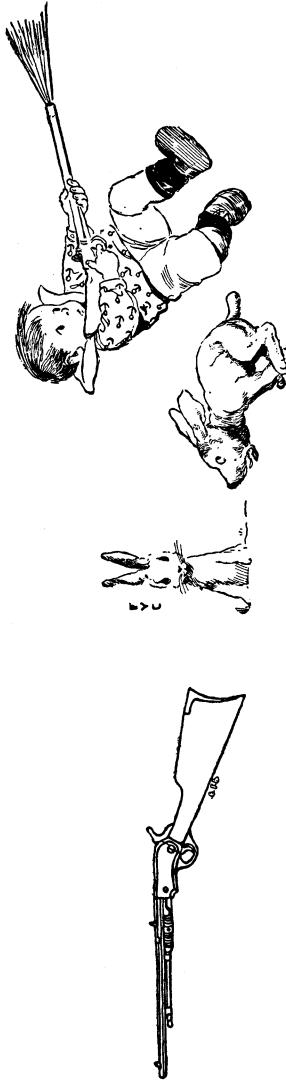
FIG. 4.—Illustrations from (1) the *Whitehouse Copybooks*, Book I, and (2) the *Berry Copybooks*, Book II. (Reproduced with the permission of the publishers.) The reproduction from the *Berry Copybooks* loses something by not being printed in color, as it is in the original.

books these probably represent the best development which has yet been attained in this direction.

It may be pointed out in this connection, however, that writing should be closely related with the reading, spelling, and other subjects of the elementary curriculum. If this correlation is carefully worked out the subject-matter may be made interesting without organizing a special set of material for writing. The method which is here illustrated serves to lay stress upon the point, however, that the content should be of interest to the child, and of such a nature that he will write it as a whole. This, of course, is aside from the question of analysis which comes to the surface when definite form of drill is introduced. A further qualification which should be made is that the child is not well able at the outset to grasp a whole sentence. Practice may then be confined to individual words of a sentence for a time, after which very short sentences may gradually be introduced. If the content is chosen from the child's reading or from the other subjects, care should be taken at the beginning that the words are easy to write, that is, that they contain simple letters in easy combinations. The form in which this requirement is usually met consists in using only one-space letters for the early lessons and then gradually introducing the stem and loop letters and deferring the capitals until toward the end of the first year. This latter precaution is probably not wise since the capitals are necessary in writing sentences. If they are introduced somewhat gradually they will probably not involve special difficulty.